

Abstract

A photocurable dental restorative comprising (i) 100 parts by weight of a polymerizable monomer, (ii) 0.01 to 5 parts by weight of a photopolymerization initiator of acylphosphine oxide, and (iii) 200 to 1900 parts by weight of an inorganic filler, wherein the inorganic filler (iii) is a mixed filler of:

(A) irregular-shaped inorganic particles having an average particle size of not smaller than $0.1\ \mu\text{m}$ but smaller than $1\ \mu\text{m}$;

(B) spherical inorganic particles having an average primary particle size of not smaller than $0.1\ \mu\text{m}$ but not larger than $5\ \mu\text{m}$; and

(C) fine inorganic particles having an average primary particle size of not larger than $0.1\ \mu\text{m}$;

which are so blended as to satisfy the following mass ratios ① to ③:

① $m_A/(m_B + m_C) = 0.2 \text{ to } 3$

② $m_B/(m_B + m_C) = 0.5 \text{ to } 0.99$

③ $m_C/(m_B + m_C) = 0.01 \text{ to } 0.5$

where m_A , m_B and m_C are masses of the inorganic particles (A) to (C).

The restorative features excellent handling property, and makes it possible to obtain a cured product having a high fracture toughness and excellently glossy surface.